

Applicants : Ian A. McCabe, Desaraju Varaprasad, Hamid Habibi and Niall R. Lynam
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Amendments to the Specification:

Please amend the paragraph beginning on page 10 at line 13 as follows:

Rear or second substrate 14 includes at least one layer or coating of metallic conductive (such as a layer of silver, aluminum or an alloy of silver or an alloy of aluminum or other metal or metal alloy) or non-metallic semi-conductive material (such as an ITO layer or the like) 20 disposed on a forward or third surface 14a of rear substrate 14 (shown in FIGS. 5 and 6 as three layers). The layers or coatings may be selected to provide sufficient reflectance of the mirror element and may provide a desired transmissivity if the mirror element includes a display at the fourth surface of the rear substrate, as discussed below. Optionally, the layers or coatings may define reflective and conductive layers or stacks of the types described in PCT application No. PCT/US03/29776, filed Sep. 19, 2003 by Donnelly Corporation et al. for MIRROR REFLECTIVE ELEMENT ASSEMBLY, published Apr. 1, 2004 as International Publication No. WO 2004/026633 A2 (Attorney Docket DON01 FP-1109(PCT)), which is hereby incorporated herein by reference. Such a stack of layers comprises a metallic layer sandwiched between two semi-conductive layers (both of which preferably are the same material, but either of which can be different from the other). As shown in FIGS. 4 and 5, at least one layer 20a is deposited directly on surface 14a of substrate 14 and includes a tab out portion 21 extending toward and substantially up to edge 14b at a generally central region 14d thereof. An electrical clip 24 is connected to tab out portion 21 to provide electricity to the layer or layers 20 on substrate 14. The outer perimeter portion of rear substrate 14 is masked during the coating process such that the coatings or layers 20 do not cover surface 14a at the outer perimeter portions except at tab out portion 21.

Please amend the paragraph beginning on page 10 at line 32 as follows:

As can be seen in FIGS. 5 and 6, the first and second substrates 12, 14 are

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positioned in spaced-apart relationship with one another with an electro-optic or electrochromic medium 16 disposed between semi-conductive layer or layers 18 and semi-conductive layer or layers 20. A non-conductive seal 19 is positioned around the perimeter of the electrochromic medium 16 and around the perimeter of the semi-conductive layer 20 except at the tab out portion 21. The electrochromic medium 16 changes color or darkens in response to electricity or voltage applied to or through the semi-conductive layers 18 and 20 at either side of the electrochromic medium. The electrochromic medium 16 disposed between the front and rear substrates 12, 14 may be a solid polymer matrix electrochromic medium, such as is disclosed in U.S. Pat. No. 6,154,306, which is hereby incorporated by reference herein, or other suitable medium, such as a liquid or solid medium or thin film or the like, such as the types disclosed in U.S. pat. application, Ser. No. 09/793,002, filed Feb. 26, 2001 by Schofield et al. for VIDEO MIRROR SYSTEMS INCORPORATING AN ACCESSORY MODULE, now U.S. Pat. No. 6,690,268 (Attorney Docket DON01 P-869), and/or in U.S. Pat. Nos. 5,668,663 and 5,724,187, the entire disclosures of which are hereby incorporated by reference herein, without affecting the scope of the present invention. The electrochromic mirror element assembly may utilize the principles disclosed in commonly assigned U.S. Pat. Nos. 5,140,455; 5,151,816; 6,178,034; 6,154,306; 6,002,544; 5,567,360; 5,525,264; 5,610,756; 5,406,414; 5,253,109; 5,076,673; 5,073,012; 5,117,346; 5,724,187; 5,668,663; 5,910,854; 5,142,407 or 4,712,879, which are hereby incorporated herein by reference, or as disclosed in the following publications: N. R. Lynam, "Electrochromic Automotive Day/Night Mirrors", *SAE Technical Paper Series* 870636 (1987); N. R. Lynam, "Smart Windows for Automobiles", *SAE Technical Paper Series* 900419 (1990); N. R. Lynam and A. Agrawal, "Automotive Applications of Chromogenic Materials", *Large Area Chromogenics: Materials and Devices for Transmittance Control*, C.M. Lampert and C.G. ~~Grandquist~~ Granquist, EDS., Optical Engineering Press, Wash. (1990), which are hereby incorporated by reference herein, and in U.S. pat. application, Ser. No. 09/792,002, filed Feb. 26, 2001 by Schofield et al. for VIDEO MIRROR SYSTEMS INCORPORATING AN ACCESSORY MODULE, now U.S. Pat. No. 6,690,268 (Attorney Docket DON01 P-869), which is hereby incorporated herein by reference. Mirror element assembly 10 may also include a seal

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(not shown) positioned around the outer portions of the layers 18, 20 and the electrochromic medium 16 to seal the layers and avoid corrosion of the metallic layer or layers.

Please amend the paragraph beginning on page 12 at line 18 as follows:

In order to provide enhanced performance of the electrochromic mirror element, each of the layers of the combination or stack of layers may have substantial conductivity and none of the layers significantly retard electron/electrical conductivity from one layer to the other throughout the stack, and, thus, do not impede the flow of electrons into the electrochromic (EC) medium. In this regard, it is desirable that one or more of the metallic layers comprises a metallic material (which is preferably a highly reflective material, such as silver or silver alloys or the like) having a specific resistivity of preferably less than approximately 5×10^{-5} ohm.cm, more preferably less than approximately 1×10^{-5} ohm.cm, and most preferably less than approximately 5×10^{-6} ohm.cm. Preferably, such a highly conductive metallic layer or layers is/are sandwiched between two non-metallic, partially conductive layers, preferably formed of a non-metallic material (such as a semi-conducting oxide, such as indium oxide, tungsten oxide, tin oxide, doped tin oxide or the like) having a specific resistivity of less than approximately 1×10^{-2} ohm.cm, more preferably less than approximately 1×10^{-3} ohm.cm, and most preferably less than approximately 5×10^{-4} ohm.cm, such as disclosed in PCT application No. PCT/US03/29776, filed Sep. 19, 2003 by Donnelly Corporation et al. for MIRROR REFLECTIVE ELEMENT ASSEMBLY, published Apr. 1, 2004 as International Publication No. WO 2004/026633 A2 (Attorney Docket DON01 FP-1109(PCT)), which is hereby incorporated herein by reference.

Please amend the paragraph beginning on page 14 at line 4 as follows:

The other semi-conductive layers and metallic layers of the layers 20 on rear substrate 14 (or other layers on front substrate 12) may be deposited onto semi-conductive layer

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20a via a cold deposition process, such as sputter coating or the like, onto an unheated substrate. Preferably, each of the layers 20 is deposited on second substrate 14 by a sputter deposition process. More particularly, the substrate 14 (including the semi-conductive layer 20a already deposited thereon) may be positioned in one or more sputter deposition chambers with either planar or rotary magnetron targets, and with deposition of the layers being achieved by either reactive deposition of an oxide coating by sputtering from a metal target (or from a conductive, pressed oxide target) in an oxygen-rich atmosphere, or by DC sputtering from an oxide target, such as an indium oxide (IO), indium tungsten oxide (IWO), indium tin oxide (ITO) or indium cerium oxide (ICO) target or the like, such as described in PCT application No. PCT/US03/29776, filed Sep. 19, 2003 by Donnelly Corporation et al. for MIRROR REFLECTIVE ELEMENT ASSEMBLY, published Apr. 1, 2004 as International Publication No. WO 2004/026633 A2 (Attorney Docket DON01 FP-1109(PCT)), which is hereby incorporated herein by reference. However, other processes for applying or depositing layers of conductive material or layers and metallic material or layers may be implemented, without affecting the scope of the present invention.

Please amend the paragraph beginning on page 24 at line 26 as follows:

The rear substrate 514 includes a metallic or conductive layer or coating 520, preferably a highly reflective metallic layer or coating (such as, for example, chromium, chromium/rhodium, silver, aluminum, silver alloy, aluminum alloy, ITO/silver/ITO stack, ITO/aluminum/ITO stack (such as ITO-silver-ITO stacks, display on demand stacks or infrared transmitting stacks of the types disclosed in PCT application No. PCT/US03/29776, filed Sep. 19, 2003 by Donnelly Corporation et al. for MIRROR REFLECTIVE ELEMENT ASSEMBLY, published Apr. 1, 2004 as International Publication No. WO 2004/026633 A2 (Attorney Docket DON01 FP-1109(PCT)), which is hereby incorporated herein by reference) or the like) applied to or deposited on and substantially over the third surface 514a of rear substrate 514. The outer perimeter edge area or border region 514b of the third surface 514a of the rear substrate 514 may

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be masked while the metallic reflector 520 is applied, such that the border region 514b of the front surface 514a of substrate 514 provides a non-conductive surface or path or raceway 514e (such as a glass surface or the like) at least partially around the metallic reflector 520 and proximate to the edge 514d of substrate 514.

Please amend the paragraph beginning on page 36 at line 26 as follows:

With reference to FIG. 25B, rear substrate 714 includes a metallic reflector layer 720 (such as a layer or layers comprising, for example, chromium, chromium/rhodium, aluminum, silver, aluminum alloy, silver alloy, an ITO/silver/ITO stack, an ITO/aluminum/ITO stack or the like, such as ITO-silver-ITO stacks or layers, or display on demand stacks or layers or infrared transmitting stacks or layers of the types described in PCT application No. PCT/US03/29776, filed Sep. 19, 2003 by Donnelly Corporation et al. for MIRROR REFLECTIVE ELEMENT ASSEMBLY, published Apr. 1, 2004 as International Publication No. WO 2004/026633 A2 (Attorney Docket DON01 FP-1109(PCT)), which is hereby incorporated herein by reference) on its front or third surface 714a, and a perimeter black seal 717 generally around the perimeter edges of the substrate. As can be seen in FIG. 25B, an electrical connection area 727 may be defined at a region of the rear substrate 714, such as at a corner of the substrate, where the perimeter seal 717 is positioned inward of the outer edge of the substrate. The rear substrate 714 is formed to be substantially identical in shape to the front substrate 712, except at the electrical connection area 727, where the rear substrate may be cut back or reduced along a cut-away or cut back edge 714c. The conductive bridge 723 is positioned at a portion of the electrical connection area 727 to provide electrical connection to the metallic reflective coating or layer 720 via electrical connector 724 at front substrate 712.

Please amend the paragraph beginning on page 50 at line 17 as follows:

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Optionally, the reflective element assembly of the present invention may include other display systems or elements (not shown) which are operable to provide, emit or display information or light through the reflective element assembly. The light is emitted through the reflective element assembly at a display area, such that the display information or light is viewable by a driver of the vehicle. The second or rear substrate and the respective semi-conductive layers of the reflective element assembly or cell then comprise a transreflective one way mirror, such as disclosed in commonly assigned U.S. pat. application, Ser. No. 10/054,633, filed Jan. 22, 2002 by Lynam et al. for VEHICULAR LIGHTING SYSTEM (Attorney Docket DON01 P-962), which is hereby incorporated herein by reference. Preferably, the reflective element assembly (behind which the display is disposed so that the information displayed is visible by viewing through the reflective element assembly) of the mirror assembly comprises a transreflective mirror reflector or reflective element assembly such that the mirror reflective element assembly is significantly transmitting to visible light incident from its rear (i.e., the portion furthest from the driver in the vehicle), while simultaneously, the mirror reflective element assembly is substantially reflective to visible light incident from its front (i.e. the position closest to the driver when the mirror assembly is mounted in the vehicle, such as is disclosed in U.S. pat. application, Ser. No. 09/793,002, filed Feb. 26, 2001 by Schofield et al. for VIDEO MIRROR SYSTEMS INCORPORATING AN ACCESSORY MODULE, now U.S. Pat. No. 6,690,268 (Attorney Docket DON01 P-869) and/or in U.S. Pat. Nos. 5,668,663 and 5,724,187, the entire disclosures of which are hereby incorporated by reference herein.

Please amend the paragraph beginning on page 51 at line 18 as follows:

Preferably, the display is a display-on-demand type of display, such as of the types disclosed in commonly assigned U.S. Pat. Nos. 5,668,663 and 5,724,187, and/or in U.S. pat. applications, Ser. No. 10/054,633, filed Jan. 22, 2002 by Lynam et al. for VEHICULAR LIGHTING SYSTEM (Attorney Docket DON01 P-962); and/or Ser. No. 09/792,002, filed Feb. 26, 2001 by Schofield et al. for VIDEO MIRROR SYSTEMS INCORPORATING AN

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ACCESSORY MODULE, now U.S. Pat. No. 6,690,268 (Attorney Docket DON01 P-869), which are all hereby incorporated herein by reference. With such a display, it is not only desirable to adjust the display brightness according to ambient lighting conditions, but it is also desirable to adjust the display brightness such that a sufficient contrast ratio is maintained against the variable background brightness of the reflected scene. Also, it may be desirable to compensate for changes in transmission of the electrochromic device affected to control rearward glare sources, in order that the display brightness appears to be maintained at a generally constant level.